

PS1TN-B  
POWER SUPPLY

**1. GENERAL.** This procurement requires a constant-voltage, constant-current dc power supply.

**2. CLASSIFICATION.** Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

**3. OPERATIONAL REQUIREMENTS.** The equipment shall operate within the minimum ranges and accuracies specified below.

**3.1 Output voltage and current.** Continuously adjustable from 0 to 300 Vdc, 0 to 3A.

**3.1.1 Load regulation.** For no-load to full-load excursions: 300 mV voltage regulation, 3 mA current regulation.

**3.1.2 Line regulation.** For line-voltage variations of 103.5 to 126.5 Vac: 300 mV voltage regulation, 3 mA current regulation.

**3.1.3 Ripple and noise.** 250 mVrms.

**3.1.4 Temperature coefficient.** For any one degree C change in the ambient temperature: 60 mV voltage regulation, 0.9 mA current regulation.

**3.1.5 Drift.** For eight hours with constant line, load, and ambient temperature:  $\pm 0.05\%$  of set voltage indication.

**3.2 Indicators.** Output voltage and current. Accuracy:  $\pm 2\%$  fs.

**3.3 Connectors.** Three-way front-panel binding posts for positive output, negative output, and chassis ground connections.

**4. GENERAL REQUIREMENTS.**

**4.1 Power source.** MIL-T-28800 nominal power source requirements are invoked. Operation at 400 Hz is not required. Maximum power consumption: 2 kW.

**4.2 Weight.** 29 kg (64 lb) maximum.

**4.3 Lithium batteries.** Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.